Before The
POSTAL REGULATORY COMMISSION
WASHINGTON, DC 20268-0001

Modification of Analytical Principles	)	Docket No. RM2012-2
in Periodic Reporting	)	
(Proposals Sixteen through Twenty)	)	

Revised Comments of the Public Representative

(January 03, 2012)

Background

On November 30, 2011, the Postal Service ("USPS") filed a petition ("Petition")

requesting that the Commission initiate a rulemaking proceeding to consider four

changes in the analytical methods approved for use in periodic reporting. These

changes are contained in Proposals Sixteen through Twenty. On December 16, 2011,

the Postal Regulatory Commission ("Commission" or "PRC") issued Order No. 1053,

granting the Postal Service's petition and opened this docket to consider the matters

raised by the Postal Service's Petition. The Public Representative ("PR") hereby

comments on the issues raised in the Postal Service's petition.

Proposal Sixteen   **Proposed Productivity Measurement for Flats Sequencing
                        System**

The Postal Service proposes to measure the productivity of the Flats Sequencing

System (FSS) as the ratio of total pieces handled (TPH) in mechanized FSS sorting

operation 538 to the hours recorded in both mechanized sorting (operation 538) and

preparation (operation 530). It proposes this method because it is unsure of the

accuracy of the preparation piece count, which would be recorded as total pieces fed

(TPF), and would produce an anomalous productivity if it was measured as TPF/hr, as

are most machine productivities. *Petition at 3.* The Postal Service's proposed method

produces a FSS productivity approximately equal to 833 total pieces handled (TPH) per

hour.

The PR is skeptical of the Postal Service's rationale for using TPH/hr, primarily

because the measure is so much lower than the weighted average of TPH/hr of the

AFSM100, a mechanized flat sorting machine which was expected to have a lower, not

higher, productivity than the FSS. Table 1 below, shows the weighted average TPH/hr of the various AFSM100 operations.

Table 1: Weighted Average TPH/hr of AFSM Operations				
AFSM IP AND IS	TPF/hr	TPH/TPF	TPH/hr	Pieces Handled
AFSM100 In Secondary	1,809	0.97	1,763	2,022,725
AFSM100 ATHS In Secondary	2,010	0.97	1,952	1,669,612
AFSM100 AI In Primary	2,317	0.96	2,226	83,539
AFSM100 AI In Secondary	3,009	0.98	2,937	2,038,724
AFSM100 ATHS/AI In Primary	7,047	0.96	6,785	384,411
AFSM100 ATHS/AI In Secondary	5,117	0.97	4,965	5,157,929
Weighted Average TPH/hr	**3,629**			

The Postal Service may be right that the piece count portion of FSS preparation is inaccurate this year and would produce an unreliable measure of preparation productivity. Unfortunately, the Postal Service does not provide data that would allow the PR or the Commission to determine the extent or direction to which the pieces handled in operation 530 are inaccurate. More importantly, the Postal Service does not provide a breakout of the pieces and hours recorded in preparation (Operation 530) and those recorded in mechanized sorting (Operation 580). Consequently, the PR is unable to tell whether the primary problem is the recording of preparation pieces or hours or both. Had these data been supplied, it would be possible to derive a proxy that reflects the throughput expectations of the Postal Community.

For example, if the Commission were to obtain data on TPH or TPF and hours for both sorting and preparation for the FSS and each of the AFSM operations, the Commission could calculate separate productivities for AFSM sorting and preparation for any operation it felt was the best proxy for FSS' true productivity. It could choose the very high TPH/hr of the AFSM100 ATHS/AI In Secondary, which combines preparation and sorting into a more or less seamless process, akin to FSS. Or, it could choose the

operation with the lowest productivity, AFSM100 In Secondary. It could examine the

TPH/hr for pure sorting and pure preparation of each AFSM operation, and perhaps a

reliable ratio of pure sorting to pure preparation productivity would be found. If so,

setting the FSS TPH for preparation equal to FSS TPH for sortation would allow one to

solve for the preparation hours that would bring the ratio of FSS sorting to preparation

productivity into alignment with the proxy ratio. This could serve as a more accurate

measurement of preparation hours than was recorded as TPF, and it would provide a

productivity that would more accurately reflect the FSS' productivity once "glitches" that

bedevil every new technology had been removed. ***The Commission should obtain***

whatever data is needed calculate a more reasonable productivity measure for

the FSS.

The low productivity levels of the FSS produce counter-intuitive results in all the

Flats' Models once the FSS Modifications Switch is turned on:

- Every piece cost and container cell in the Periodicals Summary Sheet is higher upon the introduction of the introduction of the FSS.
- Every modeled Standard Flat cost is higher, and
- Every modeled First Class Flat cost is higher

The modifications advanced in Proposal 18 move volume out of AFSM100 and

AFSM/UFSM1000 operations and into FSS operations, but the productivity applied to

FSS pieces is so much lower than AFSM operations that modeled costs increase. The

PR is concerned that the Postal Service may have moved too quickly to incorporate

FSS into the Flats' Models, and has been forced to use unreliable data, such as the

data provided in Proposal 16. ***The Commission should either obtain the data it***

needs from the Postal Service to feel confident it has derived a realistic estimate

of FSS productivity, or reject Proposal 16 until the Postal Service has had the

time and experience to reliably measure FSS productivity and other FSS

operations.[1]

Proposal Seventeen   **Consolidation of MODS Operation Groups Applicable to Standard Letter Automation Productivities**

The Postal Service states that during FY2011 "some MODS operation numbers were discontinued and the associated work incorporated into other MODS operations." *Proposal at 5*. Consequently, the Postal Service proposes to incorporate the workload and associated workhours for the Input Subsystem (ISS) and Output Subsystems (OSS) into corresponding Barcode Sorting (BCS) operations. Once consolidation is completed, it would no longer be possible to identify the productivity measures from the former ISS and OSS operations. Instead, the Postal Service has provided new productivity measures of BCS operations which include the lower productivities of the ISS and OSS operations.

The Postal Service does not explain what impact its proposal would have on the mail processing costs of Standard Letters. The PR compared mail processing model costs obtained with the productivities suggested in Proposal 17 and the currently accepted productivities in PRC STD PRST LETTERS MP PROPOSAL NINE.xlsx, filed by the Commission in Docket No. RM2011-5. In order to obtain model outputs, the PR deleted cells that were now divided by zero because the productivities of ISS and OSS operations were zero under the proposal. This allowed Excel to add operation costs to obtain a mail processing cost for each rate element in Standard Letters. Table 2 below

---

[1] The PR would be interested in learning how the Postal Service obtained higher FSS productivities for First Class and Standard Flats than Periodical Flats since MODS does not record volume or hours by class.

shows the results of this comparison.[2] Curiously, the largest and only increase pertains

to the two rate elements addressed by Proposal 12 in Docket No. RM2012-1.

Table 2: Impact of Proposal 17 on Standard Letters' Unit Mail Processing Costs		
Price Category	Change in Unit Costs in cents	Percentage Change in cents
Nonautomation Nonmachinable MADC	-1.205	-3.2%
Nonautomation Nonmachinable ADC	-0.838	-3.2%
Nonautomation Nonmachinable 3-Digit	`-0.651	-3.1%
Nonautomation Nonmachinable 5-Digit	-0.266	-2.9%
Nonautomation Machinable MAADC	1.751	20.9%
Nonautomation Machinable AADC	1.751	20.9%
Automation MAADC	-0.195	-2.6%
Automation AADC	-0.101	-1.7%
Automation 3-Digit	-0.092	-1.6%
Automation 5-Digit	-0.071	-1.8%

A better sense of the impact might be derived if the proposed BCS productivities

were inserted into Proposal 12 made by the Postal Service in Docket RM2012-1.

Table 3: Combined Effects of Proposals 12 and 17		
Price Category	Impact of Accepting Both 12 and 17 on Total Unit Mail Processing Costs in Cents	Percentage Change
Nonautomation Nonmachinable MADC	1.849	4.96%
Nonautomation Nonmachinable ADC	2.077	7.88%
Nonautomation Nonmachinable 3-Digit	0.582	2.80%
Nonautomation Nonmachinable 5-Digit	-0.404	-4.33%
Nonautomation Machinable MAADC	1.712	20.42%
Nonautomation Machinable AADC	3.798	45.29%
Automation MAADC	-0.298	-3.97%
Automation AADC	-0.228	-3.75%
Automation 3-Digit	-0.243	-4.19%
Automation 5-Digit	-0.171	-4.27%

In this case, with the exception of Nonautomation, Nonmachinable 5-digit Letters, all

Nonautomation Standard Letters will receive cost increases above the rate of inflation.

More concerning is the 20 and 40 percent increase of Nonautomation, Machinable

MAADC and AADC letters, the two rate categories for which the Commission ordered

---

[2] Note that the comparison does not assume the Commission has accepted the Postal Service's method of deriving separate MAADC and AADC Standard Letter costs in Docket No. RM2012-1, Proposal 12.

the Postal Service to develop separate unit costs in order to develop separate

worksharing discounts and passthroughs. Table 4 below shows the impact on

passthroughs and avoided costs if the Commission were to accept both Proposal 12 in

RM2012-1 and Proposal 17 in RM2012-2.

Table 4					
Standard Mail Letters (Commercial and Nonprofit) - Workshare Discounts and Benchmarks					
				Combined 12 & 17	
Type of Worksharing	Benchmark	Discount [1]	Avoided Cost [2,3]	Passthrough	
Pre-barcoding (dollars / piece)					
Automation Mixed AADC Letters	Nonautomation Machinable Mixed AADC Letters	0.003	-0.014	-22.1%	
Presorting (dollars / piece)					
Nonautomation Machinable AADC Letters	Nonautomation Machinable Mixed AADC Letters	0.017	0.021	81.5%	
1	Source of Discounts: Docket No. R2009-2, Notice of Market-Dominant Price Adjustment, Appendix A				
2	Mail processing avoided costs were calculated as the difference of the accepted model and the combined impact of Proposal 12 in RM2012-1 and Proposal 17 in RM2012-2.				
3	Delivery Cost Differences--Source: PRC-LR-8, UDC Model.xls, Sheet: Table 1, exist only for the prebarcoding avoided costs.				

The negative cost avoided for the pre-barcoding discount is unacceptable. The PR has

not had time to determine whether the problem rests with Proposal 12 or Proposal 17.

He suspects the substantial increase in unit costs and the negative pre-barcoding

avoided costs are a combination of relying on the ISS and OSS operations to model the

mail processing costs of Nonautomation Machinable MAADC and Nonautomation

Machinable AADC Letters, while at the same time using the productivities provided in

Proposal 17. ***The Commission should obtain a copy of the Standard Letters***

worksheet that has links to the new and appropriate BCS productivities that have

replaced the productivities of OSS and ISS related. Doing so will allow it to

obtain accurate mail processing costs for these two rate categories and will be

able to obtain reliable estimates of avoided costs. The PR imagines that once

positive productivities are supplied for those elements of the model that rely on the

engineering flows of the OSS and ISS systems, the negative avoided cost, as well as

the anomalies of the cost comparisons will be resolved.

Proposal Eighteen: Modifications to the Flats Cost Models

Proposal Eighteen makes four modifications to the Flats cost models. The PR's

discussion will be primarily based on evaluating these modifications for the Periodical

Flats Model (Periodicals Model), for several reasons. It has all the features of the Letter

and Standard Flat Mail models, it includes additional features, and Modifications Three

and Four only pertain to the Periodicals Model.

Modification One

Modification One proposes to incorporate FSS processing costs into the First

Class, Standard, and Periodicals Flats cost models. The changes proposed in

Modification One affect many worksheets, especially in the Periodicals cost model,

including: all the costs on the summary page, which includes piece, bundle, and

container costs, coverage factors, and bundle densities, and bundle probabilities, to

name a few.

Piece Costs

The Postal Service proposes adjusting the incoming secondary ("IS") coverage

factor to account for the impact of FSS bundles, by developing a separate IS coverage

factor for 5-digit Flats. These changes are shown in the worksheet "Coverage Factors."[3]

---

[3] IS Coverage Factors are only calculated in the Periodicals Model. Key terms on Coverage Factors worksheet include the IS coverage factor, which is the proportion of IS Flats sorted on mechanized equipment in a plant. This is equal to the ratio of the number of flats sorted in MODS mechanized

The Postal Service proposes to subtract the number of FSS sorted flats counted in MODS from the universe of flats that have a chance of being processed in a plant with mechanized flat sorting equipment. This implies that MODS-counted flats sorted on the FSS had a 100 percent probability of being processed on the FSS, and should not be included in the universe of flats that have a less than 100% probability of receiving a mechanized sort.

This modification increases the IS coverage factor by approximately 7 percentage points, since removing FSS flats from the RPW flats that might or might not receive a mechanized IS sort from the denominator of that term, total potential IS flats are reduced, thereby increasing the IS coverage factor. In addition, the share of flats capable of receiving incoming secondary sorts on the AFSM100 or AFSM/UFSM1000 are reduced by their respective shares of flats times the percentage of flats processed on the FSS. *FSS Modifications at 3.*

Next, the Postal Service proposes to increase the coverage factor of 5-digit pieces that receive a **manual** sort by accounting for the share of pieces in 5-digit bundles that will migrate to FSS Bundles. It explains that in the past, the measurement of the IS coverage factor assumed all flats bundles arriving at a plant with mechanized piece sorting equipment had an equal chance of receiving a mechanized sort regardless of the presort level of the bundle in which the piece arrived. The Postal Service explains that fewer pieces in 5-digit bundles will now receive an IS sort in an FSS zone, because:

---

incoming secondary operations to RPW, non-CR, flats — approximately 87 percent. The remaining 13 percent of Periodical Flats do not receive a mechanized incoming secondary sort. This is the value of the "Manual Coverage Factor." The "FSM Factor" is equal to the percent of plants that have mechanized flat sorting equipment available for mechanized piece sorting. The "Auto Mech Factor," is the percentage of Flats that must arrive at plants with mechanized piece sorting equipment, so that once the model accounts for flats that are not mechanically sorted at these plants the percentage of flats to do receive a mechanized IS sort is equal to the IS Coverage factor.

1) FSS bundles broken open for piece sorting at destination will have a higher

probability of receiving an IS mechanized piece sort than 5-digit bundles arriving at the

same destination, and 2) since "5-digit … bundles [are] of no operational value for mail

destinating in FSS zones," mailers who currently prepare 5-digit bundles that destinate

in FSS zones will have a higher probability of destinating at facilities that either have no

mechanization or only have the UFSM1000.[4] *FSS Modifications at 3.* **The PR finds the**

components of Modification One discussed above to be reasonable..

The final changes the Postal Service proposes that affect piece costs involve the

addition of worksheets for FSS and Carrier Route Pieces to the Periodical Cost Model.

With regard to the FSS worksheet, the Postal Service uses the previously discussed

FSS coverage factors, the acceptance rate from the AFSM100 as a proxy for FSS

acceptance rates and its estimate of FSS productivity to determine the unit model mail

processing costs of FSS piece sorting. The PR found the proxy measurement of the

FSS productivity to be problematic, and the Postal Service provides no support that

AFSM100 acceptance rates are reasonable proxies for FSS acceptance rates. While

the mechanics of the FSS worksheet are not problematic, the key values which

determine flows and volumes within the worksheet are at best proxies with unknown

reliabilities. **The PR recommends the Commission either obtain reliable operational**

FSS data during this year's Annual Compliance Report, or wait another year until

reliable FSS data and costs are developed.

---

[4] This is accomplished by dividing the national manual coverage factor by 1 plus the percent of mail that
has migrated to FSS bundles, thus increasing the Manual IS Coverage Factor. The Postal Service did not
include any migration of 5-digit to FSS bundles for FY2011. For this reason, none of the 5-digit IS
coverage factors not differ from the national IS coverage factors.

With regard to the "CR" Piece Worksheet, the Postal Service states that the purpose of the CR sheet is to measure the piece handling costs associated with CR bundles that are opened and sorted on the FSS. To obtain the number of such CR pieces "[t]he CR sheet uses the national FSS proportion less the proportion of FSS zone volume migrated to FSS bundles as a measure [of] the proportion of CR bundles that flow to FSS zones." *FSS Modifications at 4.* Since there is no data on the proportion of FSS zone volume that has migrated to FSS bundles, or the number of pieces in CR bundles that are dropped off at plants with FSS, the Postal Service simply multiplies the national percentage of pieces sorted on the FSS by 10,000 (the standard flow volume used in the other engineering flow models) to obtain the number of CR pieces that will receive an IS sort on an FSS, which in turn, will determine the FSS costs associated with these CR pieces. While the PR is certain CR bundles will be broken and sorted on the FSS, he is confused why it is appropriate to estimate FSS CR costs at a time when the Postal Service has no data on the number of bundles that migrate" to the FSS," let alone a CR-specific number of such bundles. ***The PR reaches the same conclusion it reached with the FSS sheet.***

Bundles

The Postal Service does not yet have operational data to populate the FSS Bundle downflow densities in the Bundle Densities worksheet, because it has not yet introduced FSS bundles. *FSS Modifications at 1.* To compensate for the lack of data, or in the case of productivity, the unreliability of the data, the Postal Service develops many ingenious assumptions and proxies. However, the magnitude of assumptions and proxies are so large, the PR concludes that it is premature to introduce FSS operations

into the Flats mail processing models. ***Just as the PR recommended with regard to productivity, number of CR pieces worked on the FSS, and other assumptions, the Commission should wait until the Postal Service has substantial and reliable data on all aspects of the FSS that are relevant to the Flats' costs models before accepting Proposal 18.***

Finally, the PR believes it is time to eliminate the practice of truing up the 5-digit bundle share of volume at piece distribution and 5-digit level at each container level by using the in-plant IS coverage factor. This technique was originally employed in ACR FY2007 to adjust the distribution of 5-digit bundles by container level to one commensurate with the diffusion of the AFSM100, but at a moment when the Postal Service had not provided an updated bundle density study reflecting the impact of the AFSM100. That is no longer the case, and it is no longer necessary to continue this exercise. ***The Commission should eliminate this practice.***

<u>Modification Two</u>

The Postal Service proposes to correct the measurement of piece downflow densities of Mixed Area Distribution Center (MADC) automation and Area Distribution Center (ADC) automation First-Class Flats, Periodical Flats, and Standard Mail Flats. Petition at 9-10. Currently, the number of MADC presorted flats include both presorted flats and single piece flats. The Postal service explains that single piece flats are much more likely to be "turn-around" mail and destinate in same SCF territory in which it is originated. MADC mail excludes turnaround mail, and should not have any originating mail that destinates in the same SCF. *Ibid.* For this reason, the Postal Service proposes that outgoing primary MADC automation flats have zero percent density in the incoming

secondary. Otherwise, it would be turnaround mail. ***The PR supports this***

modification.

Modification Three

The Postal Service proposes to correct an error in the calculation of mechanized

ADC pallet bundle sortation in the Periodical Flats cost model. *Id. at 10.* The accepted

model has no data on MADC pallets in the Bundle Probabilities worksheet because the

Postal Service is only now allowing the entry of bundles on MADC pallets.

Nevertheless, absence of MADC pallet data on the Bundle Probabilities worksheet may

explain why ADC pallet data are at times connected to MADC data in other worksheets.

The Postal Service proposes to connect the ADC pallet data to the corresponding ADC

data in other worksheets. ***The PR supports this modification.***

Modification Four

As part of its ongoing effort to minimize sacks, the Postal Service is now allowing

the entry of bundles on MADC pallets. It proposes to use the formulas which calculate

the probabilities of which destination-entry ADC Pallets use different operations as a

template to develop the probabilities operations origin-entry MADC pallets will use. The

Postal Service explains that the two operations are very similar. *Id. at 11.* Where they

are not the same, the Postal Service turns to data specific to MADC operations. ***The PR***

supports this modification.

Proposal Nineteen   Modification of the First-Class Mail Presort Letters Mail Processing
                            Cost Model

The Postal Service proposes to split the cost estimates of four nonautomation machinable presort letter categories into 1 value for nonautomation MAADC Letters and 1 for nonautomation AADC, 3-digit, and 5-digit Letters. The Postal Service performed a similar modification for Standard Letters in Proposal 12 of Docket No. RM2012-1, where only 2 nonautomation categories were combined.

In this case, the Postal Service makes the same modification for nonautomation MAADC and AADC First Class Letters that it did for Standard Letters, namely rely upon outgoing subsystem operations (OSS) for MAADC letters and the incoming subsystem (ISS) for AADC letters, with the exception that the same costs are derived for the three remaining nonautomation categories. ***The Public Representative supports this modification, and believes the Postal Service should be open to methods of disaggregating the remaining combined nonautomation categories.***

Proposal Twenty.   Modification of the Business Reply Mail Cost Model

The Postal Service proposes to modify the Business Reply Mail (BRM) cost model. The cost model develops the avoided cost estimate for the Qualified Business Reply Mail (QBRM) barcode discount, and also includes cost studies that support various BRM fees. *Id. at 15*.

The Commission has been concerned for some time that the current method of determining avoided QBRM costs understates the cost difference between hand-written and barcoded return pieces. The Commission has made clear that it believes two factors control the cost difference between hand-written and barcoded QBRM costs: 1)

the costs associated placing a barcode on a hand-written piece, and the point where

QBRM mail, both barcoded and hand-written, exit the mailstream and are put on "hold-

out" for the recipient to retrieve. *See e.g., Docket No. R2012-3 at 14, Docket No.*

R2011-2 at 14, and Docket No. R2006-1 at 166-177.

In this proposal, the Postal Service argues that the second factor does not matter

because both hand-written and barcoded mail can exit the mailstream after receiving a

minimal number of sorts, and both can exit much further downstream, after receiving a

large number of sorts. It concludes that the only difference remaining is the RBCS-

related barcoding costs, and this should form the basis of QBRM avoided costs. *Petition*

at 17.

The PR believes the Postal Service's discussion is a clever sleight-of-hand and

should be rejected. It is true that both hand-written and barcoded mail can exit the

mailstream for hold-out at many points in the system. But the volume of each type of

Reply Mail at each exit point can make a large difference in their avoided costs. With

the increasing penetration of the intelligent mail barcode (IMB) or possibly by using a

series of seeding tests of each type of return mail, the Postal Service should be able to

estimate avoided costs caused by both the point of exit and whether or not it is barcoded. ***The PR recommends the Commission reject the proposed method of estimating Reply Mail avoided costs by estimating the difference between RBCS-related barcoding costs of hand-written and barcoded Reply Mail.***

Conclusion

The Public Representative respectfully submits these comments for consideration.

_____
Lawrence Fenster
Public Representative
901 New York Avenue NW Suite 200
Washington DC 20268-0001
202-789-6862
larry.fenster@prc.gov